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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,763	11/14/2003	Patrick A. Hosein	4740-228	3585
24112 7590 06/09/2008 COATS & BENNETT, PLLC 1400 Crescent Green, Suite 300 Cary, NC 27518				
EXAMINER LEVITAN, DMITRY				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/713,763

Applicant(s)

HOSEIN, PATRICK A.

Examiner

Dmitry Levitan

Art Unit

2616

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-17 and 40-56 is/are allowed.
- 6) ☒ Claim(s) 18, 21, 26 and 33-35 is/are rejected.
- 7) ☒ Claim(s) 19, 20, 22-25, 27-32 and 36-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Amendment, filed 4/14/08, has been entered. Claims 1-56 remain pending

Claim Rejections - 35 USC § 112

1. In light of Applicant's amendment the rejection under of the second paragraph of 35 U.S.C. 112 has been withdrawn.

Claim Rejections - 35 USC § 103

2. Claims 18, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US 7,031,741).

3. Regarding claims 18, 21 and 26, Lee substantially teaches the limitations of the claims: A method of managing of a reverse link in a wireless communication network (estimating reverse quality information between a mobile station and a base station, as disclosed on 5:3-38), the method comprising:
assigning selected ones in a plurality of mobile stations as members in a set of rate-controlled mobile stations (assigning mobile stations in data rates group A, as disclosed on 5:62-6:21);
broadcasting rate control commands to adjust reverse link data rates of the rate-controlled mobile stations and thereby affect reverse link by the rate-controlled mobile stations (broadcasting approval message commands to the mobile stations, which are requesting a change of their data groups, as disclosed on 6:34-54); and
adjusting membership in the set of rate-controlled mobile stations if a targeted reverse link quality goal cannot be substantially maintained by broadcasting the rate control commands

(adding and dropping out of the data rates groups A, B and C, depending on the reverse quality information control bit, as disclosed on 6:62-7:7).

Lee does not teach loading of the reverse link, using common rate control commands and adjusting membership for the set of mobile station, if the reverse link loading cannot be maintained by the rate control commands

Official notice is taken that loading of an existing communication link is well known and expected in the art.

Official notice is taken that using common rate control commands to control several mobile stations with one command is well known and expected in the art.

Official notice is taken that dropping an inactive mobile station from the set of rate controlled mobile station, as the inactive stations will not respond to any rate control commands, is well known in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add loading of the reverse link and using common rate control commands to the system of Lee to improve the system efficiency by fully utilizing the reverse link by permitting the mobile customers transmit at higher data rates with acceptable quality of the link and combining rate control commands for several users in one common command to increase the speed of the system, wherein the inactive mobile stations, which are not responding to the control commands, should be dropped from the set, as these stations produce no load on the reverse link.

In addition, regarding claim 21, Lee teaches the base station sending dedicated reverse rate control bit to all mobile stations to indicate the quality of the reverse link in response to selected data rate, as disclosed on 5:25-37.

In addition, regarding claim 26, Lee teaches performing data rate control based on a fairness goal, as the station receives approval on the request for a data rate increase only if the request does not decrease the quality of all other mobile stations communicating on the reverse link, as disclosed on 6:34-61.

4. Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honkasalo (US 6,101,176) in view of Admitted Prior Art (Background of the invention, [0001]-[0005]).

Regarding claim 33 and 34, Honkasalo teaches method in a mobile station for use in a wireless communication network (mobile stations operating in wireless network comprising Outdoor and Indoor cellular networks as shown on Fig. 5 and disclosed on 14:39-15:10, wherein the mobile stations 230, 238 and 240 are located in cell 206 which is served by base station 212), the method comprising:

responding to the common control commands broadcast by a base station serving the mobile station if in a first mode (mobile station 230 is responding to control commands of serving CDMA Outdoor base station 212, when the mobile station is located only in the Outdoor cell 206, as mobile station 238 on Fig. 5, disclosed on 14:39-56, wherein broadcasting common control commands is inherent to a CDMA system, because broadcasting of the commands is essential for the system operation);

not responding to the common control commands, if in second mode (mobile station 230 will not respond to common control commands of base stations 212, when the mobile station is

operating in the Indoor mode, because the mobile station is controlled by an Indoor Base station 222 or 224, as shown on Fig. 5 and disclosed on 15:60-16:10); and

operating in the first mode or the second mode according to an indication received from the network (mobile station operates in Indoor or Outdoor mode according to the location of the mobile station, indicated by the appropriate pilot signal, as disclosed on 12:1-31).

Honkasalo does not teach using common rate control commands to adjust reverse link data rates.

Admitted Prior Art teaches using common rate control in CDMA systems, as disclosed on [0001]-[0004].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using common rate control commands to adjust reverse link data rates of Admitted Prior Art to the system of Honkasalo to improve the system operation by adding an important feature of controlling communication rates of the mobile stations.

Regarding claim 35, Honkasalo teaches using defined minimum rate for reverse link data when the mobile station is in a second/Indoor mode, shown on Fig. 2 and disclosed on 8:44-9:7, wherein the Indoor reverse frame is divided into define slots 23 and 24 with minimum rate for the Indoor frame.

Allowable Subject Matter

5. Claims 1-17 and 40-56 are allowed.

6. Claims 19, 20, 22-25, 27-32 and 36-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 18, 21, 26 and 33 have been considered but are moot in view of the new ground(s) of rejection.

On page 19 of the Response, Applicant argues that the concept of loading cannot be added to the teachings of Lee.

Examiner respectfully disagrees.

Lee teaches assigning rates to the groups of mobile stations of the system, wherein the total assigned rate should be less than the system rate capacity, as disclosed on 3:50-66.

Therefore, allocating mobile stations to different rate groups is performed to appropriately use the existing system capacity to avoid overusing the maximum system data rate or under use the maximum capacity denying the requests for the rate increase for the mobile stations, implying the concept of loading, as indicated in the rejection above.

Lee clearly teaches maximum data rate as a system target parameter, disclosed on 3:50-66.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dmitry Levitan/
Primary Examiner, Art Unit 2616

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